behavior is of special interest and can be implemented by using the high surface area silicas according to the present invention.

**Claims :**

1 A precipitated silica, characterized by

| | |
|---|---|
| BET surface area | 200 – 300 $m^2/g$ |
| CTAB surface area | ≥ 170 $m^2/g$ |
| DBP number | 200 – 300 g/(100 g) |
| Sears number $V_2$ | 23 – 35 ml/(5 g). |

2. The precipitated silica as claimed in Claim 1, characterized by the fact that the CTAB surface area is maximum 300 $m^2/g$.

3. The precipitated silica as claimed in any one of Claims 1 or 2, characterized by the fact that the precipitated silica has a WK coefficient of ≤ 3.4 (ratio of the peak height of particles that are not decomposed by ultrasound in the size range of 1.0 – 100 µm to the peak height of the decomposed particles in the size range of < 1.0 µm).

4. Precipitated silicas as claimed in any one of Claims 1 to 3, characterized by the fact that their surface areas are modified with organosilanes of Formula I to III:

$[SiR^1_n(RO)_r(Alk)_m(Ar)_p]_q[B]$ (I),

$SiR^1_n(RO)_{3-n}(Alkyl)$ (II),

or

$SiR^1_n(RO)_{3-n}(Alkenyl)$ (III),

with the following meanings

B: -SCN, -SH, -Cl, $-NH_2$, $-OC(O)CHCH_2$, $-OC(O)C(CH_3)CH_2$ (if q = 1) or $S_w$- (if q = 2), whereby B is chemically bonded to Alk,

R and $R^1$: an aliphatic, olefinic, aromatic or aryl aromatic radical with 2 to 30 C atoms, which can optionally be substituted by the following groups: hydroxyl, amino, alcoholate, cyanide, thiocyanide, halogen, sulfonic acid, sulfonic acid ester, thiol, benzoic acid, benzoic acid ester, carbonic acid, carbonic acid ester, acrylate, methacrylate, organosilane radical, where R and $R^1$ can have an identical or different meaning or substitution,

n: 0, 1 or 2,

Alk: a divalent unbranched or branched hydrocarbon radical with 1 to 6 carbon atoms,

m: 0 or 1,

Ar: an aryl radical with 6 to 12 C atoms, preferably 6 C atoms, which can be substituted by the following groups: hydroxyl, amino, alcoholate, cyanide, thiocyanide, halogen, sulfonic acid, sulfonic acid ester, thiol, benzoic acid, benzoic acid ester, carbonic acid, carbonic acid ester, acrylate, methacrylate, organosilane radical,

p: 0 or 1 with the proviso that p and n do not simultaneously mean 0,

q: 1 or 2,

w: a number from 2 to 8,

r: 1, 2 or 3, with the proviso that $r + n + m + p = 4$,

Alkyl: a monovalent unbranched or branched saturated hydrocarbon radical with 1 to 20 carbon atoms, preferably 2 to 8 carbon atoms,

Alkenyl: a monovalent unbranched or branched unsaturated hydrocarbon radical with 2 to 20 carbon atoms, preferably 2 to 8 carbon atoms.

5. A process for manufacture of a precipitated silica with a

| | |
|---|---|
| BET surface area | 200 – 300 $m^2/g$ |
| CTAB surface area | ≥ 170 $m^2/g$ |
| DBP number | 200 – 300 g/100 g |
| Sears number $V_2$ | 23 – 35 ml/(5 g) |

where

a) an aqueous solution of an organic and/or inorganic salt and/or an alkali or alkaline-earth silicate and/or an organic and/or inorganic base with a pH ≥ 9 is present

b) water glass and an acidifier are metered into this solution with stirring at 55 – 95 °C for

10 – 120 minutes simultaneously,

e) acidified with acidifier to a pH value of approx. 3.5 and

f) filtered and dried.

6. The process as claimed in Claim 5,
characterized by the fact that
the concentration of the organic and/or inorganic salt in the solution is 0.01 to 5 mol/l.

7. The process as claimed in Claim 5 or 6,
characterized by the fact that
that the following steps are carried out between steps b) and e)

c) metering is stopped for 30 – 90 minutes while the temperature is maintained, and

d) water glass and acidifier are metered into this solution with stirring at this temperature for 20 – 120 minutes, simultaneously.

8. The process as claimed in Claim 7,
characterized by the fact that
the acidifier and/or the water glass in steps b) and d) have the same concentration or metering rate.

9. The process as claimed in Claim 7,
characterized by the fact that
the acidifier and/or the water glass in steps b) and d) have a different concentration or metering rate.

10. The process as claimed in Claim 9,
characterized by the fact that
with the same concentration of acidifier and/or water glass in steps b) and d) their metering rate in step d) is 125 – 140 % of the metering rate in step b).

11. The process as claimed in any one of Claims 5 to 10,

characterized by the fact that
for the drying process an air-lift drier, a spray drier, a rack drier, a conveyor drier, a rotary drier, a flash drier, a spin flash drier, or a nozzle drier is used.

12. The process as claimed in Claim 5 to 11,
characterized by the fact that
after the drying process a granulation process is carried out with a roller compactor.

13. The process as claimed in any one of Claims 5 to 12,
characterized by the fact that
during steps b) and/or d) an organic or inorganic salt is added.

14. The process as claimed in any one of Claims 5 to 13,
characterized by the fact that
the granulated or ungranulated precipitated silicas are modified with organosilanes in mixtures of 0.5 to 50 parts, relative to 100 parts precipitated silica, in particular 1 to 15 parts, relative to 100 parts precipitated silica, where the reaction between precipitated silica and organosilane is carried out during production of the mixture (in situ) or outside of production by spraying and subsequent tempering of the mixture, or by mixing of the organosilane and the silica suspension with subsequent drying and tempering.

15. Elastomer mixtures, vulcanizable rubber mixtures and vulcanizates, containing the precipitated silica as claimed in any one of Claims 1 to 4.

16. Tires, containing precipitated silica as claimed in any one of Claims 1 to 4.

17. Tires for utility vehicles, containing precipitated silica as claimed in any one of Claims 1 to 4.

18. Motor cycle tires, containing precipitated silica as claimed in any one of Claims 1 to 4.

19. Tires for high speed vehicles, containing precipitated silica as claimed in any one of Claims 1 to 4.